

Listing of Claims

1. (CURRENTLY AMENDED) An antenna system installation ~~comprising a tower/support structure, and an antenna structure mounted on said tower/support structure, said~~ with an antenna structure for mounting on a tower/support, the system comprising:

a plurality of antenna elements;

a plurality of power amplifiers, each power amplifier being operatively coupled with one of said antenna elements and mounted closely adjacent to the associated antenna element, such that no appreciable power loss occurs between the power amplifier and the associated antenna element;

~~each said power amplifier comprising a relatively low power, relatively low cost per watt linear power amplifier chip;~~

a first RF to fiber transceiver configured to be mounted on said a tower/support structure and operatively coupled with said antenna structure; and

a second RF to fiber transceiver configured to be mounted adjacent a base portion of ~~said~~ the tower support structure and coupled with said first RF transceiver by an optical fiber cable.

2. (CURRENTLY AMENDED) A method of ~~installing~~ making an antenna system on a tower/support structure, said method comprising;

mounting a plurality of antenna elements arranged in an antenna array on said tower/support structure;

coupling a power amplifier comprising a relatively low power, relatively low cost per watt linear power amplifier chip with each of said antenna elements, each power amplifier mounted closely adjacent to the associated antenna element, such that no appreciable power loss occurs between the power amplifier and the associated antenna element; and

mounting a first RF to fiber transceiver on ~~said~~ the tower/support structure, and coupling ~~said~~ the first RF to fiber transceiver with ~~said~~ the antenna structure, and

mounting a second RF to fiber transceiver adjacent a base portion of ~~said~~ the tower/support structure, and coupling said second RF to fiber transceiver with ~~said~~ the first RF to fiber transceiver by an optical fiber cable.

3. (NEW) The antenna system of claim 1 wherein said array antenna elements include at least one element from the group of a monopole, dipole and microstrip/patch element.

4. (NEW) The antenna system of claim 1 further comprising one of a parallel corporate feed and a series corporate feed coupled to the array antenna elements.

5. (NEW) The antenna system of claim 1 further comprising a power splitting and phasing network coupled to the array antenna elements.

6.(NEW) A communication system comprising:

an antenna structure including a plurality of antenna elements which form an array;

a plurality of power amplifiers, a power amplifier being operatively coupled with each of said antenna elements of the array and mounted closely adjacent to the associated array antenna element, such that no appreciable power loss occurs between the power amplifier and the associated array antenna element;

a first RF to fiber transceiver configured for being operatively coupled with the antenna structure; and

a second RF to fiber transceiver, positioned remotely from the antenna structure and first RF to fiber transceiver, and configured for being coupled with said first RF transceiver by an optical fiber cable.

7. (NEW) The communication system of claim 6, wherein said array antenna elements include at least one element from the group of a monopole, dipole and microstrip/patch element.

8. (NEW) The communication system of claim 6 further comprising one of a parallel corporate feed and a series corporate feed coupled to the array antenna elements.

9. (NEW) The communication system of claim 6 further comprising a power splitting and phasing network coupled to the array antenna elements.